UG Regulation Node

Overview

UG Regulation Nodes are used to control the functions of Utility Goo.

Form Factor and Functions

The standard form factor for UG Regulation Nodes is a Durandium Alloy sphere 1cm in diameter. UG Regulation Nodes are fairly durable, and can endure up to DR 5 damage without losing function. A single UG Regulation Node can manage up to approximately 0.44kg/0.97lb of Utility Goo, and nodes are usually packaged with this quantity of pre-attuned Utility Goo.

Each UG Regulation Node contains a complete, low-powered suite of essential systems. UG Regulation Nodes are designed to network and function in concert. Each networked node within 5m geometrically increases the collective power of all network systems by approximately 7.5%. A maximum of 64 nodes can be networked in this fashion.

Systems

Chemical Computer

Each UG Regulation Node houses a small chemical computer to manage the node's internal systems and the functions of nearby Utility Goo. Individual nodes can understand and carry out simple instructions, and a maximized 64-node network possess significant raw processing power, but this power is usually consumed in managing the complex functions of Utility Goo, and even a 64-node network is not powerful enough to support a sentient AI.

Inertia and Gravity Manipulator

Each UG Regulation Node houses a miniaturized inertia and gravity manipulation system. This allows the node to alter the apparent mass and mass distribution of both itself and the volume of Utility Goo it manages. A single node can only affect minor changes, but a maximized 64-node network can exert inertia and gravity manipulation abilities approximately twice as powerful as those of an adult NH-29 Nekovalkyrja.

Scalar Field Generator

Each UG Regulation Node houses a short-range scalar field generator. Scalar fields serve as the primary communication and power distribution system for the picomachines in Utility Goo. A single UG Regulation Node can charge and control Utility Goo at range of approximately 5m. A maximized 64-node network can charge and control Utility Goo at a range of 510m. UG Regulation Nodes can generate scalar fields of sufficient intensity to scramble unshielded electronics and stun most known humanoids.

Communication

Because UG Regulation Nodes are designed to work in concert, each node possesses a robust communications package. Nodes can communicate through encrypted scalar field, magnetic induction, telepathic or radio transmission, and can continuously alter their transmission and reception parameters to circumvent signal jamming and foil 'spoofing.'

A single UG Regulation Node has a communication range of:

- 1m by magnetic induction
- 5m by scalar field
- 5km by telepathy or radio

A maximized 64-node network has a communication range of:

- 102m by magnetic induction
- 510m by scalar field
- 510km by telepathy or radio

Power Storage

UG Regulation Nodes possess limited internal power storage through the use of high-density capacitors. The nodes' capacitor cells can be charged locally from energy collected by the Utility Goo it manages, or remotely via scalar fields or magnetic induction. Power consumption and operational life will vary depending upon application.

Cost and Availability

- Cost: 100 KS for a single, bare node, 150 KS for a single node packaged with 0.44kg/0.97lb of pre-attuned Utility Goo (Tentative)
- Availability: General (No Restricted Technologies)

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